

From all which it is manifest, that if the Sun's Light consisted of but one sort of rays, there would be but one Colour in the whole World, nor would it be possible to produce any new Colour by reflexions and refractions, and by consequence that the variety of Colours depends upon the composition of Light.

### DEFINITION.

The homogeneous light and rays which appear red, or rather make Objects appear so, I call rubrific- or red-making; those which make Objects appear yellow, green, blue and violet, I call yellow-making, green-making, blue-making, violet-making, and so of the rest. And if at any time I speak of light and rays as coloured or endued with Colours, I would be understood to speak not philosophically and properly, but grossly, and according to such conceptions as vulgar People in seeing all these Experiments would be apt to frame. For the rays to speak properly are not coloured. In them there is nothing else than a certain power and disposition to stir up a sensation of this or that Colour. For as sound in a Bell or musical String, or other sounding Body, is nothing but a trembling Motion, and in the Air nothing but that Motion propagated from the Object, and in the Sensorium 'tis a sense of that Motion under the form of sound; so Colours in the Object are nothing but a disposition to reflect this or that sort of rays more copiously than the rest; in the rays they are nothing but their dispositions to propa-  
gate

gate this or that Motion into the Sensorium, and in the Sensorium they are sensations of those Motions under the forms of Colours.

### PROP. III. PROB. I.

*To define the refrangibility of the several sorts of homogeneous Light answering to the several Colours.*

For determining this Problem I made the following Experiment.

### EXPER. VII.

When I had caused the rectilinear line sides AF, GM, Fig. 4. of the Spectrum of Colours made by the Prism to be distinctly defined, as in the fifth Experiment of the first Book is described, there were found in it all the homogeneous Colours in the same order and situation one among another as in the Spectrum of simple Light, described in the fourth Experiment of that Book. For the Circles of which the Spectrum of compound Light PT is composed, and which in the middle parts of the Spectrum interfere and are intermixt with one another, are not intermixt in their outmost parts where they touch those rectilinear sides AF and GM. And therefore in those rectilinear sides when distinctly defined, there is no new Colour generated by refraction. I observed also, that if any where between the two outmost Circles TMF and PGA a right line, as  $\gamma\delta$ , was cross to the Spectrum, so as at both ends to fall perpendicularly upon its rectilinear sides, there appeared

M 2

one